

## [0027]

Sequence Listing

<110> President of Nara Institute Science and Technology

<120> Theobromine synthase polypeptide of coffee plant and the gene encoding said

- 5 polypeptide
  - <160>8
  - <210>1
  - <211> 378
  - <212> Amino acid
- 10 <213> Caffea arabica
  - <400>1

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CASGPNTLLT VRDIVQSIDK VGQEEKNELE RPTIQIFLND LFQNDFNSVF KLLPSFYRKL 120

EKENGRKIGS CLISAMPGSF YGRLFPEESM HFLHSCYSVH WLSQVPSGLV IELGIGANKG 180

15 SIYSSKGCRP PVQKAYLDQF TKDFTTFLRI HSKELFSRGR MLLTCICKVD EFDEPNPLDL 240

LDMAINDLIV EGLLEEEKLD SFNIPFFTPS AEEVKCIVEE EGSCEILYLE TFKAHYDAAF 300

SIDDDYPVRS HEQIKAEYVA SLIRSVYEPI LASHFGEAIM PDLFHRLAKH AAKVLHMGKG 360

CYNNLIISLA KKPEKSDV 378

- <210> 2
- 20 <211> 1298
  - <212> Nucleic acid
  - <213> Caffea arabica
  - <400> 2



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	TGAATTCGAC	GAACCGAATC	CCCTAGACTT	ACTTGACATG	GCAATAAACG	ACTTGATTGT	780
5	TGAGGGACTT	CTGGAGGAAG	AAAAATTGGA	TAGTTTCAAT	ATTCCATTCT	TTACACCTTC	840
	AGCAGAAGAA	GTAAAGTGCA	TAGTTGAGGA	GGAAGGTTCT	TGCGAAATTT	TATATCTGGA	900
	GACTTTTĀAG	GCCCATTATG	ATGCTGCCTT	CTCTATTGAT	GATGATTACC	CAGTAAGATC	960
	CCATGAACAA	ATTAAAGCAG	AGTATGTGGC	ATCATTAATT	AGATCAGTTT	ACGAACCCAT	1020
	CCTCGCAAGT	CATTTTGGAG	AAGCTATTAT	GCCTGACTTA	TTCCACAGGC	TTGCGAAGCA	1080
O,	TGCAGCAAAG	GTTCTCCACA	TGGGCAAAGG	CTGCTATAAT	AATCTTATCA	TTTCTCTCGC	1140
	CAAAAAGCCA	GAGAAGTCAG	ACGTGTAAAA	GTTTGTTTTT	AGTTGGTTTT	TGTGCCGTTG	1200
	GGGGTCTTTC	GGGTATTGTC	GTTTTGTATT	CGTAATAAAA	GTGATGTGCA	AGAATAAGAT	1260
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15 <211>385

<212> Amino acid

<213> Caffea arabica

<400> 3

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LEKENGRKIG SCLIAAMPGS FHGRLFPEES MHFLHSSYSL QFLSQVPSGL VTELGITANK 180

RSIYSSKASP PPVQKAYLDQ FTKDFTTFLR MRSEELLSRG RMLLTCICKG DECDGPNTMD 240

LLEMAINDLV AEGRLGEEKL DSFNVPIYTA SVEEVKCMVE EEGSFEILYL QTFKLRYDAG 300

FSIDDDCQVR SHSPVYSDEH ARAAHVASLI RSVYEPILAS HFGEAIIPDI FHRFATNAAK 360

VIRLGKGFYN NLIISLAKKP EKSDI 385

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5

10

15

20

30



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ACAAAGTATT	GACAAAGTTA	AGCAAGAAAT	GAAGAATGAA	TTAGAACGTC	CCACCATTCA	300
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CTTCTACCGC	AAACTTGAGA	AAGAAAATGG	ACGCAAAATA	GGATCGTGCC	TAATAGCCGC	420
AATGCCTGGC	TCTTTCCACG	GCAGACTCTT	CCCCGAGGAG	TCCATGCATT	TTTTACACTC	480
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GAATACCATG	GACTTACTTG	AGATGGCAAT	AAACGACTTG	GTTGCTGAGG	GACGTCTGGG	780
GGAAGAAAAA	TTGGACAGTT	TCAATGTTCC	AATCTATACA	GCTTCAGTAG	AAGAAGTAAA	840
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CATCCTAGCA	AGTCATTTTG	GAGAAGCTAT	TATACCTGAC	ATATTCCACA	GGTTTGCGAC	1080
GAATGCAGCA	AAGGTTATCC	GCTTGGGCAA	AGGCTTCTAT	AATAATCTTA	TCATTTCTCT	1140
TGCCAAAAAA	CCAGAGAAGT	CAGACATATA	AAAGCTTGTT	TTTAGTTGGT	TTTTGTGTTA	1200
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TACTTTTTAT	ATTATTAGTT	GGTGTATAAT	TATTATGTTA	CATTGTTATA	TTCGTAATAA	1320
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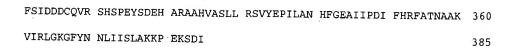
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25 <212> Amino acid

<213> Caffea arabica

<400> 5

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LEKENGRKIG SCLIAAMPGS FHGRLFPEES MHFLHSSYSL QFLSQVPSGL VTELGITANK 180
RSIYSSKASP PPVQKAYLDQ FTKDFTTFLR IRSEELLSRG RMLLTCICKG DEFDGPNTMD 240
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<210>6

<211>1304

5 <212> Nucleic acid

<213> Caffea arabica

<400>6

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10	ACTGGTTCTC	GCCAAGGTGA	AACCTGTCCT	TGAACAATGC	GTAGGGGAAT	TGTTGCGGGC	180
	CAACTTGCCC	AACATCAACA	AGTGCATTAA	AGTTGCGGAT	TTGGGATGCG	CTTCCGGACC	240
	AAACACACTT	TTAACAGTTC	GGGACATTGT	ACAAAGTATT	GACAAAGTTA	GGCAAGAAAT	30,0
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•	TTTCAATTCG	GTTTTCATGT	TGCTGCCAAG	TTTCTACCGC	AAACTTGAGA	AAGAAAATGG	420
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	CCCCGAGGAG	TCAATGCATT	TTTTACACTC	TTCTTACAGT	CTTCAATTTT	TATCCCAGGT	540
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,	AATCTATGCA	GCTTCAGTAG	AAGAATTAAA	GTGCATAGTT	GAGGAGGAAG	GTTCTTTTGA	900
	AATTTTGTAC	TTGGAGACTT	TTAAGCTCCG	TTATGATGCT	GGCTTCTCTA	TTGATGATGA	960
	TTGCCAAGTA	AGATCCCATT	CCCCAGAATA	CAGCGATGAA	CATGCTAGAG	CAGCGCATGT	1020
25			TTTACGAACC		·		
			GGTTTGCGAC				
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			TTTTGTGCTA				
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<210> 7

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5	<400> 7						
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						V FKLLPSFYRI	
						L VTELGISTNI	
	•					G VELDARNAII	
10						L ETFKVLYDAG	
	FSIDDEHIK	A EYVASSVRA	/ YEPILASHF	G EAIIPDIFHF	R FAKHAAKVL	P LGKGFYNNLI	360
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	a -						
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15	<212> Nuc	leic acid		. *		:	
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	CCAACTTGCC	CAACATCAAC	AAGTGCATTA	ÄAGTTGCGGA	TTTGGGATGC	GCTTCTGGAC	240
	CAAACACACT	TTTAACAGTT	CGGGACATTG	TCCAAAGTAT	TGACAAAGTT	GGCCAGGAAA	300
	AGAAGAATGA	ATTAGAACGT	CCCACCATTC	AGATTTTTCT	GAATGATCTT	TTCCCAAATG	360
	ATTTCAATTC	GGTTTTCAAG	TTGCTGCCAA	GCTTCTACCG	CAAACTTGAG	AAAGAAAATG	420
25	GACGCAAAAT	AGGATCGTGC	CTAATAGGGG	CAATGCCCGG	СТСТТТСТАС	AGCAGACTCT	480
	TCCCCGAGGA	GTCCATGCAT	TTTTTACACT	CTTGTTACTG	TCTTCAATGG	TTATCTCAGG	540
	TTCCTAGCGG	TTTGGTGACT	GAATTGGGGA	TCAGTACGAA	CAAAGGGAGC	ATTTACTCTT	600
	CCAAAGCAAG	TCGTCTGCCC	GTCCAGAAGG	CATATTTGGA	TCAATTTACG	AAAGATTTTA	660
	CCACATTTCT	AAGGATTCAT	TCGGAAGAGT	TGTTTTCACA	TGGCCGAATG	CTCCTTACTT	720
30	GCATTTGTAA	AGGAGTTGAA	TTAGACGCCC	GGAATGCCAT	AGACTTACTT	GAGATGGCAA	780
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CAGTCTATAT ACCTTCAGCA GAAGAAGTAA AGTGCATAGT TGAGGAGGAA GGTTCTTTTG 900